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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/591,508	06/12/2000	Masanori Chikuba	000736	3585

23850 7590 02/03/2004

ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP  
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WASHINGTON, DC 20006

EXAMINER

ROSE, ROBERT A

ART UNIT	PAPER NUMBER
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3723

DATE MAILED: 02/03/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.  
**09/591,508**Applicant(s)  
**Chikuba et al**Examiner  
**Robert Rose**Art Unit  
**3723**

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (e). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10-11-02, 10-24-02, 9-13-02, 3-21-03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-5, 7, 9-12, and 15-17 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-5, 7, 9-12, and 15-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

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### DETAILED ACTION

1. Receipt is acknowledged of Applicant's Prior Art Statements, filed September 13, 2002, October 24, 2002, and March 21, 2003, respectively.
2. This action is responsive to the interview summary of October 11, 2002. The finality of the last Office action dated July 11, 2002 is withdrawn in accordance with the interview summary.
3. This action is further responsive to the amendment filed April 16, 2002.
4. Claims 1, 6, 8, and 13-14 have been canceled. Claims 2-5, 7, 9-12, and 15 were amended. Claims 16-17 have been added.
5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
6. Claims 2-5, 7, 9-12, and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazuaki(Japan No. 10-296018) in view of Masao(Japan No. 10-175172). Kazuaki discloses a method of grinding a magnetic member comprising substantially all of the subject matter set forth in applicant's claims above. A magnetic workpiece(w) is ground by a grinding wheel(c) while grinding fluid is supplied to the grinding region of the work. The grinding fluid is drained from the region and passed through a magnetic separator(1) to remove magnetic sludge from the liquid. The remaining liquid passes through a sedimentation tank(6), and optional filters(2,3)

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before being circulated back to the grinding region. With regard to Applicant's third step, magnetic coagulation of the remaining magnetic particles in the liquid would be an inherent result of allowing the liquid to settle in the sedimentation tank, since particles of the workpiece are polarized and would naturally tend to agglomerate in the absence of agitation. Note separation of the heavier particles in sedimentation tank(106) after passing through the magnetic separator(101), in the embodiment of figure 11 of Kazuaki. While Kazuaki is silent with regard to the composition of the grinding wheel, such superabrasive grinding wheels are known in the art for use in grinding high-hardness materials such as rare earth magnets, as evidenced by Masao et al. To simply incorporate a conventional resin/superabrasive grinding composition in the grinding wheel of Kazuaki, if such is not already disclosed therein, would have been obvious in view of Masao et al. With regard to claim 3, the lower value of magnetic flux density for the magnetic separator is deemed to constitute no more than an obvious matter of design choice to those of ordinary skill in the art. With regard to claim 15, the rare earth magnet produced by the recited method appears no different than one produced by the prior art method, especially if one considers the obviousness of not recycling the waste material at all, and relies only upon fresh grinding fluid for the entire grinding process on a workpiece. The surface quality of the work would then not suffer as a result of recycling high-hardness swarf from previous workpieces.

7. In view of the new grounds of rejection not necessitated by Applicant's response, this action is not made final.

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8. Any inquiry concerning this communication should be directed to Robert Rose at telephone number (703) 308-1360.

rr

January 23, 2004.

ROBERT A. ROSE  
PRIMARY EXAMINER  
ART UNIT 323

A handwritten signature in black ink, appearing to read "Robert A. Rose", is written over the printed name and title.